

What is claimed is:

1. A precursor paste, comprising:
a photosensitive material;
5 ceramic particles dispersed in the photosensitive material;
a first surfactant comprising a phosphorus based compound having at least one
phosphorous atom with at least one -OH group; and
a second surfactant comprising a sulfonate-based compound having a sulfonate
group.
10
2. The precursor paste of claim 1 wherein the paste has a viscosity of 1,500 to 20,000
cps at 22°C.
3. The precursor paste according to claim 1, wherein the ceramic particles are present
15 in an amount ranging from 60% to 90% by weight.
4. The precursor paste according to claim 1 or 2, wherein the photosensitive material
comprises a monomer or oligomer having a (meth)acryl group.
- 20 5. The precursor paste according to any one of claims 1 to 3, wherein the ceramic
particles comprise at least one material selected from the group consisting of glass,
alumina, titania, zirconia, silica and mixtures thereof.
6. The precursor paste according to any one of claims 1 to 3, wherein the ceramic
25 particles have an average particle size ranging from 0.1 to 10 μm .
7. The precursor paste according to any one of claims 1 to 3, wherein the first
surfactant is present in a ratio of 99:1 to 1:99 relative to the second surfactant.
- 30 8. The precursor paste according to any one of claims 1 to 3, wherein the paste
comprises
5 to 15 parts by weight of a photosensitive resin;

60 to 90 parts by weight of ceramic particles;

0.1 to 1.0 parts by weight of a first surfactant consisting of a phosphorus based compound;

5 0.1 to 1.0 parts by weight of a second surfactant consisting of a sulfonate-based compound;

5 to 15 parts by weight of a diluent; and

0.02 to 0.25 parts by weight of a photopolymerization initiator.

10 9. A article comprising a substrate and a pattern of projections of predetermined shape and dimensions formed on the surface of the substrate, that is formed by photocuring of the fine structure precursor paste of any one of claims 1 to 3.

15 10. The article according to claim 9, wherein the pattern of projections is a straight pattern formed by disposing a plurality of ribs at equal intervals substantially in parallel to each other.

20 11. The article according to claim 9, wherein the pattern of projections is a grid pattern formed by disposing a plurality of ribs at equal intervals substantially parallel to each other and crossing each other.

25 12. A method of producing an article comprising:
providing a flexible mold that has a pattern of grooves of shape and dimensions that correspond to the pattern of projections to be formed;
filling the grooves of the mold with the precursor paste of any one of claims 1 to 3;
laminating the mold on a substrate;
photocuring the paste; and
removing the mold.

30 13. Plasma display panel ribs formed from the method of claim 12.